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# 14 Safety Management System Implementation Strategy

## SAFETY CONTROL

*Safety controlling* is what takes place when a Safety Management System (SMS) is implemented. This control comprises the establishment of safety and health standards, implementing them, and monitoring adherence to them. These standards form the safety management system which should be integrated into the daily management of the organization. The actions and processes called for by the standards are ongoing and will eventually lead to a minimization of risks within the organization.

### DEFINITION

Safety control is the management function of identifying what must be done for safety, setting standards of measurement and accountability, inspecting to verify completion of work, evaluating, and following up with safety action.

The identification phase would include highlighting the strengths and weaknesses in the existing safety system if any, *identifying* the risks in the workplace and *identifying* what actions need to be taken, by whom, and when, to set up the safety system. The next step is *setting standards of performance* and *standards of accountability* for safety system processes. The *measurement* against those standards is then done by *inspections* and follow up. The *evaluation* of work being done is verified and evaluated by audit, and *corrective actions* put into action to correct deficiencies.

A modern safety approach suggested by some Guidelines is the *Plan, Do, Check, Act* methodology.

- *Planning* is the establishment of objectives, processes, and actions necessary to deliver results in accordance with the safety policy leading statement. (Philosophy, policy statement, action plan, setting objectives, etc.)
- *Doing* entails implementing the processes and actions to achieve the goals and ambitions set by the guiding policy document, and relevant standards. (Setting standards, training, involvement, baseline audits, implementing standards, etc.)
- *Checking* is the monitoring phase where achievements are gauged against the policy and standards. (Inspections, reviews, system audits, measurements, etc.)



- *Acting* is taking continual action to improve the safety system and its processes. (Implement more elements as per action plan, rectify deviations, recognize performance, etc.)

When implementing (and maintaining) a structured safety management system, the *Plan, Do, Check, Act* methodology is a good model to follow, as it leads to a process of continual improvement, which is important in safety management. A safety system has no end point, and management will continually be challenged with ongoing processes and improvements.

### DEFINING THE ORGANIZATION'S SAFETY PHILOSOPHY

One of the first (planning) stages in the implementation of a safety system is a firm commitment and decision from top management to implement and support the safety initiative, and to remain active participants in the change process (Figure 14.1). Once this commitment has been made, the organization must establish a safety and health philosophy. This does not have to be a long complicated document, but rather a few simple safety beliefs that the organization believes in, and will abide by.

An example of an organization's safety and health philosophy is:

- Our employees are our greatest assets.
- We believe that more than 98% of accidents can be prevented.
- Each accident is caused by multiple causes.
- Contractors are as important as our employees.
- Safety is a part of our daily business.
- We believe in safe production, etc.

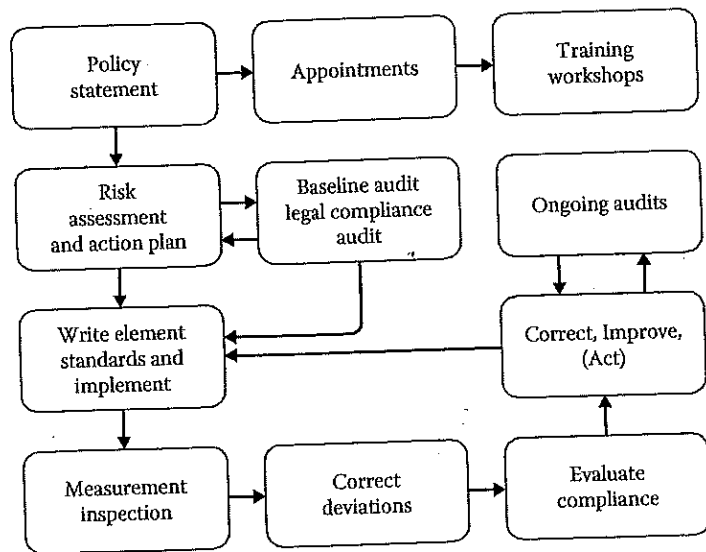


FIGURE 14.1 Safety system implementation sequence.



A few guiding statements such as those listed will establish a firm premise on which to build the safety system. Organizations should avoid old, worn out clichés such as “Safety is first” or “Safety is our priority,” in their philosophy as they are meaningless, and do not reflect reality. The safety and health policy is now constituted around the safety philosophy.

### THE SAFETY AND HEALTH POLICY STATEMENT

Most safety and health management systems start at a logical point, which is a safety and health policy statement of intent (safety policy) which is initiated, and followed through, by management. This is the guiding document of the safety management system and forms an important step in the planning phase.

A safety policy is a standing safety decision, which applies to repetitive safety problems that may affect the safety of the organization. It is the commitment that the management team makes to guide the safety effort and activities.

The following are advantages of a safety policy:

- The policy gives common points of view concerning occupational safety and health.
- The policy provides rational rather than erratic safety decisions.
- Employees know the executives’ stance on safety.
- The policy is an indication of the organization’s safety considerations.
- Safety policies allow for delegation of safety work.
- Efficient and effective teamwork is facilitated by a safety policy.
- The policy provides guidelines to everybody in how to do the right things concerning safety.
- The safety policy is managements’ commitment to safety and the safety system.

Safety policy statements must be dynamic, they must be realistic, and the objectives set must be tangible. Depending on the organization, both management and worker representation should agree upon the policy. The Safety and Health policy should be extensively publicized, should cover all aspects of safety, and should:

- Include a commitment to injury and ill-health prevention
- Indicate safety responsibilities and accountabilities
- Refer to continuing improvement of safety and health initiatives
- Contain a commitment to comply with safety and health legislation
- Provide a framework for safety objective setting
- Be documented, displayed and maintained
- Be freely available
- Be communicated to all affected parties
- Receive periodic review

### **PUBLICIZING THE POLICY**

The safety policy should be drawn up with considerable care, and must be signed by the Chief Operating Officer or the most senior manager. In some instances, the entire executive leadership signs the policy. The safety policy should be displayed at prominent positions throughout the organization. To give credibility to safety, the policy should preferably be attractively printed and suitably framed. The display positions must be carefully selected, and employees should be briefed and reminded of the policy via means of ongoing briefing sessions, to ensure that everyone understands the policy. It is advantageous to have a copy of the safety policy reproduced in the safety rule book. This helps during the safety induction process and also serves as an ongoing reminder of the safety commitment of the organization. Contractors should also be made aware of this policy from the beginning of the bid process.

### **ACTION PLAN**

An important step in implementing a safety management system is the compiling and issuing of a safety management system implementation plan. This plan will then form the roadmap for the laying out of the safety management system. The plan will detail what needs to be done, by when it must be completed, and who-must-do-what, to complete the plan objective. The plan will consist of a number of small objectives to be achieved and will lead to the complete implementation of a well-structured safety management system, over a predetermined period of time.

### **TIME SPAN**

Few, if any, safety management systems are implemented in a period shorter than 5 years. This is dependent on the level of safety management existing at the initiation of the structured safety system launch. Complying with local safety laws does not indicate the implementation of a world's best practice safety management system. Legal compliance is seen as a minimum requirement. If there is uncertainty as to the status of the safety management system, the baseline audit will clarify further enhancements and existing weaknesses.

The management review recommended by the Guidelines would consist of frequently comparing the safety management system progress with the action plan.

### **GUIDELINE CHOICE**

As with all strategies, there need to be objectives, and achieving the requirements of the selected safety system Guideline could be one of them. This would ensure that the safety management system is following a national or international standard for safety management systems. An advantage of aiming to achieve the requirements of a Guideline is that external third party audits can be facilitated to indicate to the organization whether or not they are fulfilling the Guideline's requirements. In some instances, it leads to accreditation.

## **MANAGEMENT AND EMPLOYEE AWARENESS TRAINING**

Few managers have undergone formal safety and health training, and therefore do not fully understand the functioning of a safety system, nor the philosophy behind loss causation and safety control. A series of workshops should take place where the organization's safety philosophy, policy, and safety action plan are presented to all line management. Their roles, authority, responsibility, and accountabilities should be part of the presentation. Many organizations insist that ALL their managers, supervisors, and team leaders attend these workshops. The same training workshops should be held for employees so that all are made aware of the policy and the safety system requirements. Contractors should also be exposed to similar workshops.

## **INTEGRATING SAFETY AND HEALTH**

Safety and health should be integrated into the daily routine of the business. All meetings should open with a discussion on safety and incident recall. Ongoing safety processes should form part of the normal work, and the message must be clear that safety is not simply an add-on. The policy must be lived. Line managers must set an example to all, and employees need to be engaged in the safety processes and activities.

## **HAZARD IDENTIFICATION, ELIMINATION, AND RISK ASSESSMENT**

The risks within the organization will indicate the controls that need to be put in place via the safety management system. All hazards need to be first identified and the hierarchy of controls applied in an effort to reduce the hazards and the consequent risks.

### **THE HAZARD BURDEN**

The range of activities that take place at an organization and the nature of the process will create hazards, which will vary in nature. The number, range, nature, distribution, and significance of the hazards, known as the hazard burden, will determine the risks which need to be controlled. Ideally, the hazard should be eliminated altogether, either by the introduction of inherently safer processes, or by no longer carrying out a particular activity. If the hazard burden is reduced and if other variables remain constant, including the successful functioning of the safety management system, this will result in lower overall risk and a consequent reduction of unintentional losses.

### **HAZARD ELIMINATION**

The first option to reduce hazards is to endeavor to eliminate them completely. If the hazard could be designed out of the workplace, this would be the ideal solution.

If elimination is not possible, then engineering controls such as guarding or barricading to isolate the source of energy would be the next option. Guarding of rotating machinery and other pinch points is a good example of isolating the source of the hazard. If hazards cannot be eliminated by engineering revision, then the next option is substitution of the process, substance, or procedure with another safer process, substance, or procedure.

Administrative controls are applied when the above options have been exhausted. These would involve actions, such as minimization of employee exposure to the hazard, training, awareness campaigns, work procedures and practices, permit system, etc.

Providing personal protective equipment (PPE) is seen as the last resort to protect workers. It is always more beneficial to ensure that the work environment is free from hazards before simply issuing protective clothing and equipment. PPE slows down the process and relies on the integrity of the employee to wear it, and does not eliminate the hazard. It only offers protection against the hazard, and therefore is deemed the last solution for protection against hazards.

### **RISK ASSESSMENT INSPECTIONS**

To identify, and mitigate the risks, management, in conjunction with the workforce, should visit the point of action, carry out inspections, hold discussions, and determine exactly what work needs to be done to make the work environment safer and healthier. Listening to the workers is invaluable in this regard. A baseline safety audit would assist this process. The identification of work to be done to train, guide, educate, and motivate workers toward safe work practices should also be considered.

### **SAFETY MANAGEMENT SYSTEM**

Based on the risk assessment, management lists and schedules the work needed to be done to create a safe and healthy work environment, and to eliminate high-risk acts of employees. This would mean the introduction of a suitable structured safety management system based on world's best practice. All safety management systems should be based on the nature of the business and be risk-based, management-led, and audit-driven. The introduction of a structured safety system could include having to guard machinery, demarcate walkways and work areas, purchase correct tools and equipment, and set up maintenance systems for equipment and plants, compile procedures, initiate processes, etc.

### **CHANGE AGENT**

Often large corporations hire a safety culture change agent as a part of their implementation strategy. By creating a safe space, the agent holds discussions with employees at all levels, and through a series of discussion and feedback sessions, he or she determines what safety changes the employees themselves can make. This process is called the empowering of employees in safety. The same process is then applied with members of line management, and at the end, both groups have a clearer picture of the role they can play in the safety system.

## BASELINE AUDIT

A baseline audit could be used as a starting point for the implementation of a structured safety system. The baseline audit would deliver a report indicating strengths and weaknesses compared to a world's best safety system. An action plan compiled as a result of the baseline audit would then form the safety system implementation plan.

## LEGAL COMPLIANCE

Using the local safety regulations as a basis for an organization's standards is always a recommendation. Although regarded as the minimum to strive for, they offer already written standards that only have to be converted to the organization's specific needs and customized. One of the objectives in the safety policy is legal compliance, so this would be a great help in establishing system standards.

## SAFETY MANAGEMENT SYSTEM STANDARDS

The next logical step in the implementation process is to set written standards of performance. Safety standards are referred to as "measurable management performances." Standards are set for the level of work to be done to maintain a safe and healthy environment, free from actual and potential accidental loss. Standards are established in writing for all the safety and health management system elements. Without standards, the safety management system has no direction, nor are safety expectations established. (If you do not know where you are going, any road will take you there.) Setting standards for the safety of the workplace will entail determining the major areas of risk, and in conjunction with various committees, unions, and employees, drawing up acceptable standards for at least eighty elements, similar to the Example SMS.

Many of these standards have already been defined and written by prominent safety organizations in various countries, so the safety wheel need not be re-invented. Local safety and health regulations also prescribe certain standards and these could be used as a guideline. Many years of research and input from numerous quarters have contributed to the development of these standards.

Management should modify these standards to suit their own company's requirements but should not water down, or eliminate the standards merely, because they are too difficult to achieve. These should be regarded as the minimum standard to achieve.

The standards should be measurable management criteria, and therefore they should be tangible, reasonable, attainable, and quantifiable. Standards would also include time frames for initial completion and ongoing updates. Safety system standards must be based on safety control and not consequence. Any standard set should include *what* must be done, *who* must do it, and by *when* and *how often* must it be done.

## SET STANDARDS OF RESPONSIBILITY AND ACCOUNTABILITY

Standards of accountability are now set by delegating authority to certain positions for ongoing safety work to be done. Coordination and management of the safety system needs to be allocated to certain departments and individuals, and this standard dictates who must do what, and by when, to run and maintain the system.

Traditionally, the function of safety was dumped in the safety department and they were told to manage the safety. Safety does not belong in the safety department, but with line management.

*Changing Safety's Paradigms* explains:

Perhaps one of safety's biggest stumbling blocks is the responsibility for safety has been pushed down to the safety department. As soon as there is a safety issue, it becomes the responsibility of the safety department. Safety belongs with the line management, from the lowest level of management to the chief executive officer. Safety is their function. The safety department should only coordinate the safety activities and not accept responsibility for the entire safety function. (McKinnon, Ron, 2007, p 135)

Setting standards of accountability is where the management team states who must do the work and by when. This would entail appointing certain responsible persons such as the following:

- Managers
- Safety Coordinator
- Occupational Hygiene Coordinator
- Safety and Health Representatives
- Divisional safety committees
- Central safety committees
- Accident investigators
- Responsible engineers
- Internal safety auditors
- Fire Coordinator
- Permit issuers
- First aid / responder attendants
- Housekeeping coordinators, etc.

Company letters of appointment, as well as a brief description of their responsibilities and accountabilities, should be issued to the nominated employees. The correct person must be appointed for the task, and adequate, relevant training must go hand in hand with this person's appointment. The responsibilities should also be included in each safety system element standard.

The nomination of safety committee members should be done on a democratic basis and the chairperson likewise elected, where applicable. The most important committees to be established under these standards would be the joint management and union safety and health committees. These committees would assist in the setting of standards of accountability of the various persons. It also offers a platform for open and frank safety discussion between management and employee representatives.

When setting standards of accountability, it should be remembered that accountability for safety can never be delegated. The individual worker remains ultimately responsible for their own safety. Managers are responsible for the employees working under them, and within their area of control. Employees such as the Safety Coordinator are only responsible to coordinate the safety system and can never be

held responsible for the safety of the organization. Again it is stated, that safety is not the responsibility of the safety department. The safety department has seldom the authority to carry the burden of safety responsibility. They can only be responsible for coordinating the activities that constitute the ongoing safety system.

The management work of setting standards of accountability is of utmost importance to the success of the organization. If permit systems are needed, for example, then employees must be given the responsibility to devise these systems, modify them, and implement them. This gives them the satisfaction of helping to achieve a high standard of safety.

Some assistance can be achieved by:

- Visiting other plants that run a successful safety system.
- Calling in safety consultants to help write safety standards.
- Contacting local safety organizations to assist.
- Liaising with the local legal inspectors for advice concerning standards.

### IMPLEMENTATION OF STANDARDS

Some standards may already be in place, and others may have to be implemented. The decision on which standards to implement first, will depend on the situation and other factors, but experience has shown that the smaller the safety change, the smaller the resistance to that change will be. Gradual implementation of the tangible elements of the system is preferable. Resistance to these changes should be expected and pushback from both managers and employees should be handled correctly by endeavoring to get them to be part of the change. This is why participation and recognition are important safety management functions. Gradual implementation of new safety processes will not invoke as much resistance as instant change. Implementation of the standards for the elements should be as per the action plan, which could be a one to five-year process.

The standards' implementation process will occur over a reasonable period of time, as all 80 plus elements cannot be written and implemented simultaneously. They must be phased in over time as determined by the action plan. This is why it is beneficial to implement the easier standards first. The standards that already exist in the organization, or those required by safety regulation, should be formalized and implemented first.

### INSPECTIONS

Once these standards are in place, regular inspections should take place to monitor progress against these standards. After an inspection, a checklist of work to be done to fully comply with the standards should be produced, and this would form the action plan for the next few weeks. This ongoing process should continue until the first internal audit takes place, and then continue as part of the continual improvement strategy.

### **CORRECTION**

Deviations from safety system standards need to be prioritized and corrected. Using the simple A, B, and C hazard ranking system, repairs and rectifications of hazards noted can be scheduled. To retain credibility, management at all levels should ensure that hazards reported by employees are acknowledged and rectified. This will give employees more confidence to report hazards in the future.

### **FOLLOW UP**

A safety system calls for ongoing improvement as a result of review processes. Follow up action must take place to ensure any gaps and weaknesses found in the system are rectified. Correct reporting lines must be established, and all reports and subsequent action need to be monitored for completion. Safety system standards may need revision before the annual review, and new standards may be needed to support new production techniques or changes in the operations.

### **SAFETY SYSTEM AUDITS**

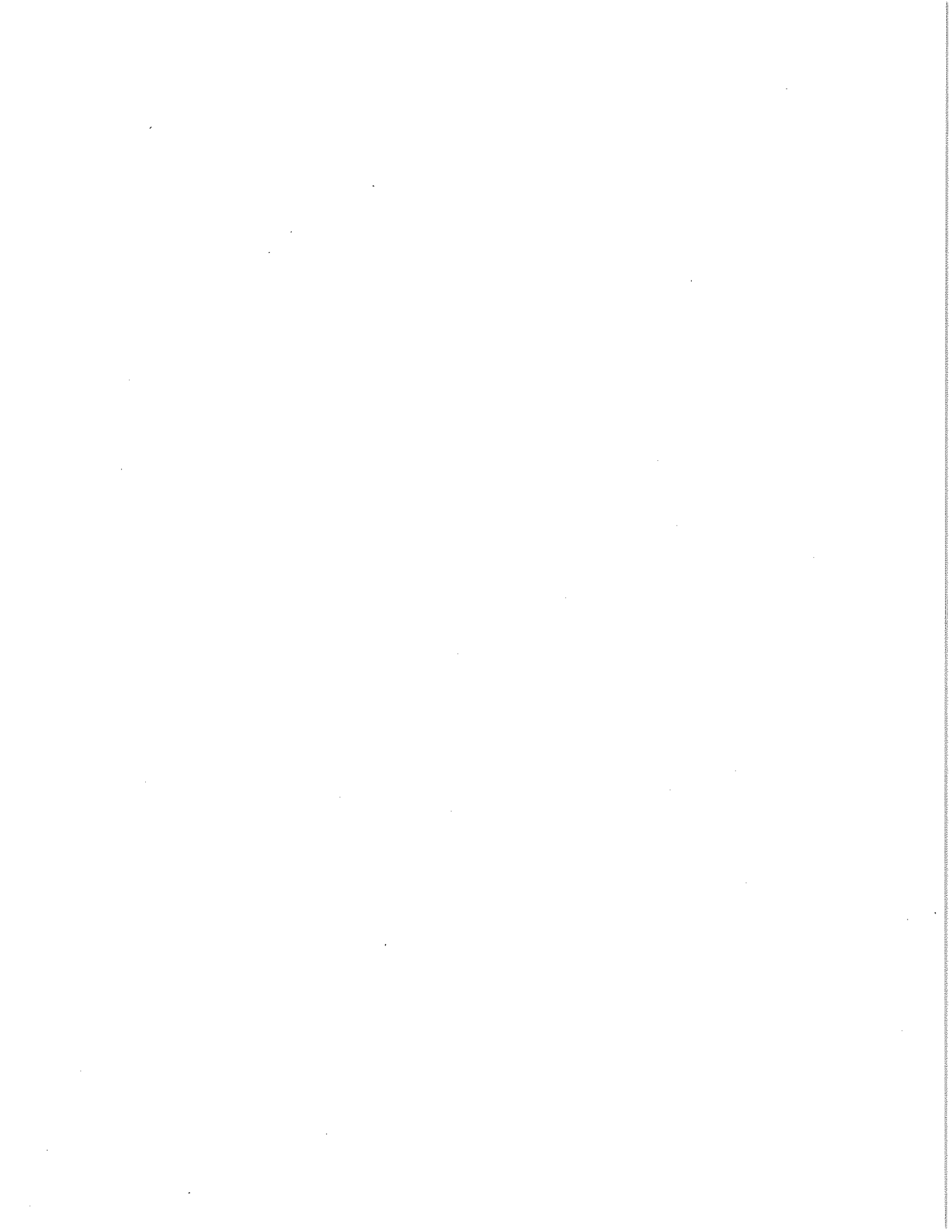
To monitor progress and provide improvement, a system of internal audits of the safety system should be introduced within the first 6 months of the initiation of the system. The findings of each audit should be carefully monitored, and follow up action taken to improve the deficiencies found and to build on the safety system strengths. External audits should take place every 12 months and action plans should be drawn up to ensure a cycle of continuous measurement, evaluation, and improvement of the safety system and its components.

### **SAFETY POLITICS**

Despite all efforts, interventions, initiatives, and safety processes being implemented to set up the safety management system, internal safety politics will prove to be the biggest obstacle to overcome. Safety is 90% politics and 10% work. Safety management tests and tries all levels of leadership, and challenges them with obstacles that they have never before encountered. Safety brings about change and the majority of people are not comfortable with change. There will be reaction and resistance to safety change. The resistance may come from some management levels and even from the workforce. Safety challenges the leadership ability of managers, and since the safety system impacts on most areas within the company, it tends to attract reaction, some good, and some bad.

### **BLAME THE SYSTEM**

Managers will tend to revert to the management styles that they know, and in times of crisis forget to apply new management principles and practices demanded by a safety management system. One department's safety improvement and success will



create competition, which will earn the system discredit. Many will say the system is failing because they are struggling to meet the standards required. Some will mock the safety efforts by, for example, treating the evacuation drills as a fun exercise instead of taking these seriously. The successful implementation of a safety management system requires hard work, tenacity, and ongoing drive, and support from the leadership of the organization.